

2012-
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Energy Strategic Plan

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Iowa Economic Development Authority

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Introduction

With the restructuring of the Iowa Office of Energy Independence, the Iowa Economic Development Authority has been presented with a unique opportunity to incorporate energy in economic development initiatives. Energy initiatives can significantly complement current efforts underway at IEDA to meet Governor Branstad's job creation goals. While business attraction for location in Iowa is a key strategy to positively impact job numbers and create economic growth, working with existing businesses to implement energy efficiency retrofits and clean energy technologies can make tremendous impact to the bottom line of businesses by reducing operational costs. Dollars saved through such efforts can be reinvested to expand product and service lines, increase profit margins, and hire additional staff to meet the business needs.

It is widely accepted that investments made in energy result in economic growth and job creation opportunities. Research by the Center for American Progress show that clean energy investments create 16.7 jobs for every \$1 million in spending. Moreover, recent trends show that energy is the fastest growing industry. Placing strong emphasis on energy efficiency retrofits and clean energy development correlates with the two primary goals of the Iowa Economic Development Authority.

1. Enhance job markets by creating employment opportunities for energy efficiency and clean energy products' designers and installers.
2. Create investment opportunities by creating energy cost savings that can be re-invested in other business activities, thereby creating short-term and long-term economic growth prospects.

In addition, collaboration with key stakeholders to advance relevant energy policies related to biofuels, and wind hold potential to create new economic prospects for Iowa's communities. Since Iowa is primarily an agricultural economy, policies that create markets for Iowa's agricultural products should be supported.

By implementing the strategies contained in this plan, we believe we can positively impact Iowa's economy. We realize that some of the programs and plans contained here are perhaps undertaken by existing entities. In that case, the Energy Team's goal should be to strengthen those connections with increased awareness and collaboration.

Assessment of Past Programs

Iowa has made significant strides in increased market penetration of clean energy technologies such as wind, biofuels, and solar, and bringing energy efficiency to the public sector. With the use of Recovery Act funds, a number of projects were funded in the public sector including regent institutions, community colleges, cities and counties, and hospitals. With the funds, the entities not only increased energy efficiency but also lowered operational costs that could be re-invested in critical areas such as education and health services. The expected annual cost savings from both the State Energy Program and Energy Efficiency Conservation Block Grants

amount to \$10.5 million. Additionally, the Iowa Energy Bank continues the public sector efficiency work through its loan program.

However, an area where the Recovery Act did not have significant impact is the private sector. This includes industrial, commercial, and agricultural sector. Significant gaps exist in energy policy and programs for the private sector. While utilities provide noteworthy programs for these sectors, additional efforts could be undertaken that motivate private sector entities to reduce their carbon footprint. The Energy Team would like to address the private sector to not only increase clean energy penetration but also result in much needed savings for the private sector. The steps to reach that point are contained in this strategic plan.

Vision

To create long-term economic growth opportunities for Iowa through energy efficiency, clean energy technologies manufactured in Iowa and energy policies that draw on Iowa's core advantage.

The Energy Team has established four core goals to meet the vision noted above. These are:

- ☐ Provide Financial and Technical Assistance
- ☐ Support and Promote Energy Policy Initiatives
- ☐ Serve as an Energy Clearinghouse
- ☐ Support Business Development Activities at IEDA

These goals and the related strategies are discussed in details in the next section.

Goals

Goal 1: Provide Financial and Technical Assistance

Provide financial and technical assistance for energy efficiency initiatives and renewable energy applications with a focus on the industrial, commercial and agricultural sectors.

Access to technical expertise and commercially viable financing are two main challenges that entities face in increasing energy efficiency or applying renewable energy technologies, especially among small to medium sized enterprises. For many, energy improvement dollars compete with other business demands. The payback analysis as a basis for undertaking energy efficiency projects can also serve as a disincentive because the upfront investment is perceived as a barrier.

Additionally, small and medium-size businesses do not have the expertise to explore the topic of energy as a cost-cutting measure. There is generally a misconception that energy efficiency comes with a high price tag. Disseminating accurate technical information can overcome this perception. Because Iowa's economy is energy intensive, energy efficiency improvements can have a substantial impact on both energy use and on an organization's operating budget.

In order to support the business community in energy related decision making, IEDA's energy team will provide technical and financial assistance as outlined below. The IEDA energy team will be cognizant of the existing programs offered by other energy stakeholders such as utilities so as to not duplicate what is already being offered but rather enhance existing programs.

Technical Assistance

Area 1: Highly Visible and Branded Recognition Program

Private entities place a significant importance to the corporate brand. In today's times, sustainability efforts are becoming a key indicator of companies' corporate image. IEDA will establish a highly visible recognition system that recognizes companies for their efforts in reducing energy usage and/or installing renewable energy applications through a certificate or similar program. This program will be called Iowa EDGE (Iowa Economic Development by Gaining Efficiency)*

- ☐ Strategy 1: Seek out companies and leaders that have taken a lead in energy efficiency and will be willing to serve as "Champions" for the branding and the recognition program and companies that will serve as the participants of this program.

* Since the time this plan was compiled, significant developments have taken place for the Area 1 activities. The most significant is that IEDA is a recipient of the Environmental Protection Agency (EPA) Pollution Prevention grant for this work.

- ☐ Strategy 2: Seek members from the current Board composition at IPEP, IEDA, and ICC who will be willing to support the program. It will be easier to build the program if the support comes from within.
- ☐ Strategy 3: Conduct market research to see if similar programs exist that could be replicated in Iowa.
- ☐ Strategy 4: Coordinate with utilities to enhance existing recognition programs implemented by the utilities.
- ☐ Strategy 5: Compile and offer technical assistance on tools that are innovative in nature.

Area 2: Energy Newsletter

Establish an avenue to distribute timely energy news targeted at the private sector through a periodic newsletter. An information source that is unbiased and free from saleable interests can spur action from the interested entities. Key aspects of the newsletter should be best practices and case studies on energy efficiency, overview of new technologies and their application, and a listing of pertinent resources. IEDA will utilize its own expertise and also seek expertise from other state partners involved in the energy area. This newsletter will be unique since it will be custom designed to suit the needs of Iowa's economic composition and will filter out information that is irrelevant.

- ☐ Strategy 1: Identify gaps in the availability of energy information by conducting research analysis on sources of information currently being used by the private sector to make energy decisions.
- ☐ Strategy 2: Develop a newsletter format consistent with IEDA's marketing and communications guidelines.
- ☐ Strategy 3: Collaborate with the business and marketing team to develop a subscriber list and to disseminate the newsletter.

Area 3: Energy Resource Guidebook

Small businesses are at the greatest disadvantage when it comes to implementing energy efficiency programs. A step-by-step guidebook that helps businesses evaluate their energy options could overcome some of the initial barriers to implementing energy improvements.

- ☐ Strategy 1: Conduct research to see what types of technical assistance already exist.
- ☐ Strategy 2: Utilize Iowa's experts through the Iowa Energy Center, Iowa Utilities Board, Investor-owned utilities, regional electric co-operatives, and municipal utilities to create the Energy Resource Guidebook.
- ☐ Strategy 3: In addition to disseminating the Guidebooks, make concerted efforts to work with small businesses to assist with the implementation efforts.

Area 4: Technical Information Workshops and Outreach

It can be difficult to stay current on different energy topics and to receive relevant training in the energy field. IEDA will play a significant role in this area by connecting experts in the energy field with entities that would like to make energy efficiency improvements. Training topics will

focus on ISO50001, combined heat and power (CHP), energy tracking systems, and other areas of interest to Iowa organizations.

- ☐ Strategy 1: Work with Iowa's energy stakeholders to understand where technical information is most needed.
- ☐ Strategy 2: Create an Energy Education Webinar Series targeted at Iowa's industrial, commercial, and agricultural sector. This could be modeled after the webinars offered by the Wisconsin Energy Center but will be catered to meet the unique Iowa needs.
- ☐ Strategy 3: Create a funding pool by charging a nominal fee to attend the webinars and provide revenues for future webinars.

Financial Assistance

Area 1: Energy Improvement Study Fund

A major barrier to implementing energy efficiency improvements is the upfront investment entities have to make to evaluate alternatives through retrocommissioning services, audits, energy management plans, engineering studies, and lifecycle cost analyses. Providing initial funding for these studies can reduce the burden on these entities. IEDA will evaluate the development of a mechanism that makes funding available for planning activities through a performance based rewards model. Participating organizations could apply for reimbursement once the recommended energy efficiency measures are implemented.

- Strategy 1: Review similar financing programs offered by other states and study the pros and cons.
- Strategy 2: Develop a program suited to meet Iowa's needs.

Area 2: Incorporate energy in current financing programs at IEDA[†]

Companies that go above and beyond job creation criteria and also reduce their energy load should be rewarded. A program such as this will not only create an edge for Iowa in comparison to other states' financing programs, it will help entities lower their annual operating costs. A supplemental tiered funding strategy could be integrated with current IEDA financing programs, building on existing programs that are well established and proven. A strategy like this would reward entities that create energy savings with higher financial awards as opposed to those who do not take any energy efficiency efforts. Possible criteria to evaluate include installing energy efficiency improvements, applying renewable energy technologies, obtaining a LEED certification or utilizing best practices in sustainable design, commissioning of energy improvement construction projects, installing meters and monitoring equipment, and completing an energy management plan.

- ☐ Strategy 1: Engage experts from stakeholders to devise an evaluation system that could be adopted/implemented.

[†] See the supplemental white paper on the proposed energy financing programs for IEDA.

Area 3: Energy Fund

One of the major weaknesses of the Iowa Power Fund was that it lacked a strategy in funding projects. The Power Fund targeted all sectors in the energy arena and also heavily focused on Research and Development Projects. Moving forward, IEDA should create a mechanism to attract companies that are in the early commercialization stage. Since Iowa's universities and its research facilities already undertake significant research projects, the focus of IEDA should be on taking those successful projects and providing avenues for early commercialization. In order to do that, the following strategies should be undertaken:

- ☐ Strategy 1: Establish an Energy Fund with clear guidelines and strategies and the vision it aims to achieve. This could be coupled with the Technology Demonstration Funds that IEDA currently administers but with a specific focus on energy projects.
- ☐ Strategy 2: Partner with research institutions and the private sector in Iowa and track products ready to commercialize.
- ☐ Strategy 3: Create an evaluation criterion through which to fund projects. The criterion should include job creation potential, economic impact, and utilization of Iowa's resources.
- ☐ Strategy 4: Provide financial and technical assistance to eligible projects that meet the criteria.

Area 4: Coordinate with Utilities and Other Stakeholders

Utilities play a critical role in advancing Iowa's economic interests through supply and pricing strategies that create an environment that is conducive to business attraction and retention. IEDA will play a stronger role in working with the utilities to develop programs and policies that complement efforts made by IEDA in economic development and energy. The Energy Team will specifically work with the utilities to propose improvements that will increase the effectiveness of energy incentive programs for the private sector.

Area 5: Build on Existing Research and Development, and Early Commercialization Project

One of the positive outcomes of the Iowa Power Fund is the intellectual capital that was created in Iowa through R&D and commercialization projects. Some of these projects offer significant potential for expansion and economic growth opportunities. IEDA will continue to build upon the relationships established through various Iowa Power Fund projects and other technology demonstration projects in order to commercialize and develop these initiatives. The end result is the development of industrial and commercial opportunities and creation of jobs in Iowa. The Energy team will coordinate efforts with the Regulatory and Workforce Assistance staff of IEDA to provide resources to build business success. IEDA will work with the Power Fund entities in assist them in mapping their supply chain and determine who could be their potential long term partners. Power Fund entities could be used as a target to reach out to businesses out of state.

- ☐ Strategy 1: Work with small to medium sized entities that applied for Power Fund to develop their products by providing business assistance.

- ❑ Strategy 2: Make connections between these entities and IEDA's business contacts to see if companies can collaborate.

Goal 2: Support and Promote Energy Policy Initiatives

Promote energy efficiency and renewable energy policy initiatives that promote economic growth in Iowa.

Area 1: Support national and state energy policies that benefit Iowa

IEDA will work closely with different energy stakeholder groups such as Midwestern Governor's Association (MGA), Governor's Wind Coalition (GWC), Governor's Biofuels Coalition (GBC), Iowa Energy Center (IEC), Iowa Utilities Board (IUB), Office of Consumer Advocate (OCA), investor owned utilities, and other state agencies where significant energy work is being conducted. In addition to staying informed on all the state initiatives, this also provides an opportunity to coordinate efforts and work towards the shared goals. A key idea under policy work is to engage stakeholders and cooperatively develop roles and a process that increases the exchange of information. IEDA will also engage Iowa's businesses to ensure that their needs are being met in IEDA's policy work. IEDA could facilitate a dialogue that asks businesses to self-organize and prioritize policy needs that IEDA uses to create the agenda.

Area 2: State by state comparison of state sponsored incentive programs

In order to compete with other Midwestern states and also nationally for business attraction, IEDA should be aware of what policies and programs other states have that might put Iowa at a disadvantage. Such comparisons will help Iowa to develop policies that have the most impact for business recruitment and retention. The Council of Governments has a website that provides a state by state comparison on the incentives provided by each state for economic development efforts. The energy team will also utilize other resources such as the ACEEE and DSIRE websites to make this comparison.

Area 3: White Paper and Case Studies

In order to garner support from Iowa communities on energy initiatives, IEDA will provide white paper summaries of pending and enacted legislation and demonstrate how certain policies will benefit Iowans and improve the economic viability of the state. As part of this analysis, the team will review the existing code and identify gaps in requirements and work with energy stakeholders on how to address policy deficiencies.

Goal 3: Serve as an Energy Clearinghouse

Serve as an Energy Clearinghouse by assuming a strong role as a State Energy Office to serve industrial, commercial, and agricultural stakeholders

By assuming a role of an Energy Clearinghouse, IEDA will be able to provide accurate information to lowans and demonstrate the effectiveness of building energy standards, and efficiency measures – showing significant savings in electrical and natural gas costs, decreased reliance on foreign energy sources, and creating a more diverse mix of energy sources. This will also help to build awareness and change attitudes and perceptions. In order to meet this goal, the following efforts should be undertaken.

Area 1: Energy Research and Tracking

IEDA will create an information collection system that gathers information from different sources and establishes and maintains a knowledge base on energy related topics. Topics will include energy efficiency, demand reduction, clean energy sources, and other relevant areas.

Area 2: Website

In order to provide easy access to information and resources, an interactive energy component should be include in the IEDA website. This website will serve as a repository for technical and regulatory information and will link to key partners, including but not limited to, investor owned utilities, municipal utilities, regional electric co-operatives, state agencies, universities and colleges, and non-profit organizations.

Area 3: State's Energy Assurance

In maintaining the role of the State Energy Office, IEDA will work closely with the Iowa Utilities Board and IDALS to ensure that Iowa maintains a steady source of energy supply that is protected from disruption. Because IEDA's primary role is to assist the business community to continue to operate profitably, ensuring a steady energy supply is a key responsibility.

Area 4: Develop Energy Metrics Tracking System

IEDA will initially focus its efforts in documenting the energy related data generated by its past programs, including the ARRA programs, and the Iowa Power Fund program. Later efforts will focus on establishing systems to track IEDA's current and future undertakings.

Goal 4: Support Business Development Activities at IEDA

Provide support and energy expertise to business development activities. Leverage research and technology initiatives and provide venues for private sector growth opportunities.

Area 1: Evaluate Iowa's Current Economic Environment and Energy Potential

In order to create a strong clean energy sector, it is important to understand the current economic environment and assess what industrial clusters occur in Iowa especially by region. The Energy team will evaluate state research, manufacturing, infrastructure, labor and policy environment and match them with clean industries' needs. Some of the areas for examination will include current infrastructure, public-private partnerships and collaboration, regulatory challenges, supply chain, and availability of resources.

- Strategy 1: Take an account of the existing state research that has been done and link it to potential energy industries.
- Strategy 2: Solicit input from businesses and Manufacturing Extension Partnerships (MEPs) to identify areas where significant potential exists for energy.

Area 2: Provide Assistance to Business Sales

From an energy standpoint as well as other factors, Iowa is ideally located for manufacturing and industrial enterprises. Iowa generally enjoys low energy rates compared to other states and has capitalized on a diverse array of renewable energy technologies. Making this information available can serve as an incentive for companies to locate to Iowa. Under this, resources will be developed to assist organizations to include energy considerations in their site selection process.

- Strategy 1: Provide an energy profile on a case-by-case basis to be used by the business sales team to assist entities with their site selection process.
- Strategy 2: Create energy profiles for various industrial sectors that demonstrate Iowa's energy advantage and share it with established networks of businesses.
- Strategy 3: Develop case studies to be used for marketing purposes that demonstrate why certain industries-wind and solar supply chain, biobased chemicals, and biofuels should locate to Iowa.

Area 3: Represent Energy at the Iowa Innovation Council

Since energy will continue to play a significant role in the innovation arena, it is critical to ensure that there is an expert energy representative on the Iowa Innovation Council to review project proposals and target appropriate industries.

- Strategy 1: Hold periodic communications between the Iowa Innovation Council and the Energy Team representative to discuss current affairs in the shared areas of interests.

Area 4: Collaborate with Business, Regulatory and Workforce Assistance Team

Two areas where the Energy Team could collaborate include Workforce Assistance and Brownfields Development. The Energy Team could collaborate with Workforce Assistance to target programs that train students to equip them with skills needed to work in advanced energy technology companies.

In order to repurpose abandoned lands, a number of innovative concepts have been developed and implemented. These include using brownfields for solar energy development, creating energy parks on abandoned industrial sites, and others. Concepts such as these not only create jobs but also utilize existing infrastructure. Such repurposing of abandoned lands has come to be understood as Brightfields. These Brightfields provide a number of benefits including lessening dependence on foreign oil, creating cost savings, and cleaning up potentially harmful contaminated site.

- Strategy 1: Collaborate with the Regulatory and Workforce Assistance team to develop options to incorporate energy needs in the workforce and regulatory assistance programs.
- Strategy 2: Work with existing industries and municipalities that own brownfields to help develop interest in repurposing brownfields into Brightfields.
- Strategy 3: Work with the Iowa legislature to create financial incentives through tax credits for repurposing of brownfields to Brightfields.